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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
08/558,544	11/16/1995	SHUNPEI YAMAZAKI	0756-1441	3919

31780 7590 03/24/2004

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EXAMINER

KANG, DONGHEE

ART UNIT	PAPER NUMBER
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2811

DATE MAILED: 03/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

08/558,544

Applicant(s)

YAMAZAKI, SHUNPEI

Examiner

Donghee Kang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4,6,7,10-18,20,21,23-28,30,32 and 34-59 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-4,6,7,10-18,20,21,23-28,30,32,34-44,46-54 and 56-59 is/are allowed.
- 6) ☒ Claim(s) 45 & 55 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. Applicant is notified that any subsequent amendment to the specification and/or claims must comply with 37 CFR 1.173(b). The claims should show all changes with respect to the patent. This means that the claims must include the proper markings showing what is different from the original patent claims.
2. The reissue oath/declaration filed with this application is defective because it fails to contain the statement required under 37 CFR 1.175(a)(1) as to applicant's belief that the original patent is wholly or partly inoperative or invalid. See 37 CFR 1.175(a)(1) and see MPEP § 1414. A supplemental oath/declaration stating that "all errors" being corrected arose without deceptive intent. This is necessary to cover all the amendments made since the last supplemental oath/declaration filed 02-05-2001.
3. Claims 45 & 55 are rejected under 35 U.S.C. 251 as being improperly broadened in a reissue application made and sworn to by the assignee and not the patentee. A claim is broader in scope than the original claims if it contains within its scope any conceivable product or process which would have infringed the original patent. A claim is broadened if it is broader in any one respect even though it may be narrower in other respects.

Claim 45 has a limitation "wherein said semiconductor layer has at least one of an electron mobility greater than $15 \text{ cm}^2/\text{Vsec}$ and a hole mobility greater than $10 \text{ cm}^2/\text{Vsec}$ " which provide the "broadening aspect" to the claim 45. In an original

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application, claim 8 has a limitation "wherein said semiconductor layer has at least one of an electron mobility $15\text{-}100\text{ cm}^2/\text{Vsec}$ and a hole mobility $10\text{-}100\text{ cm}^2/\text{Vsec}$.

4. Claims 1-4, 6-7, 10-18, 20-21, 23-28, 30, 32, & 34-59 are allowed.

The following is an examiner's statement of reasons for allowance:

Prior art reference, taken along or in combination, do not teach or render obvious that a device for sensing a light comprising a light sensor region and a semiconductor switch region adjacent to and operatively connected with said light sensor region over an insulating substrate having a block layer, wherein a semiconductor region of the light sensor region and an active region of the semiconductor switch comprises a same semiconductor layer,

wherein the semiconductor layer has a semi-amorphous structure formed on the blocking layer over the insulating substrate, and wherein a raman spectrum of the semi-amorphous structure exhibits a peak deviated from that which stands for single crystal for the semiconductor or

wherein the semiconductor layer has lattice distortion and the peak of laser raman spectrum of the semiconductor layer is shifted to a lower wavenumber than 520 cm^{-1} or

wherein a raman spectrum of the semiconductor layer exhibits a peak deviated from that which stands for a single crystal for the semiconductor and the semiconductor layer comprises hydrogen doped silicon or

wherein the semiconductor layer has a semi-amorphous structure comprising a mixture of amorphous and crystalline structure, in which a raman spectrum of the semiconductor film exhibits a peak deviated from that which stands of a single crystal of the semiconductor.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Donghee Kang whose telephone number is 571-272-1656. The examiner can normally be reached on Maxiflex.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eddie C Lee can be reached on 571-272-1732. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Donghee Kang
Examiner
Art Unit 2811

dhk